BUNN®

LCA-1
LCA-1A

INSTALLATION & OPERATING GUIDE

BUNN-O-MATIC CORPORATION

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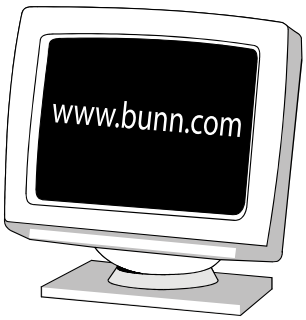

To ensure you have the latest revision of the Operating Manual, or to view the Illustrated Parts Catalog, Programming Manual, or Service Manual, please visit the Bunn-O-Matic website, at www.bunn.com. This is absolutely FREE, and the quickest way to obtain the latest catalog and manual updates. For Technical Service, contact Bunn-O-Matic Corporation at 1-800-286-6070.

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BUNN-O-MATIC COMMERCIAL PRODUCT WARRANTY

Bunn-O-Matic Corp. (“BUNN”) warrants equipment manufactured by it as follows:

1) Airpots, thermal carafes, decanters, GPR servers, iced tea/coffee dispensers, MCP/MCA pod brewers thermal servers and Thermofresh servers (mechanical and digital)- 1 year parts and 1 year labor.

2) All other equipment - 2 years parts and 1 year labor plus added warranties as specified below:

a) Electronic circuit and/or control boards - parts and labor for 3 years.

b) Compressors on refrigeration equipment - 5 years parts and 1 year labor.

c) Grinding burrs on coffee grinding equipment to grind coffee to meet original factory screen sieve analysis - parts and labor for 4 years or 40,000 pounds of coffee, whichever comes first.

These warranty periods run from the date of installation BUNN warrants that the equipment manufactured by it will be commercially free of defects in material and workmanship existing at the time of manufacture and appearing within the applicable warranty period. This warranty does not apply to any equipment, component or part that was not manufactured by BUNN or that, in BUNN’s judgment, has been affected by misuse, neglect, alteration, improper installation or operation, improper maintenance or repair, non periodic cleaning and descaling, equipment failures related to poor water quality, damage or casualty. In addition, the warranty does not apply to replacement of items subject to normal use including but not limited to user replaceable parts such as seals and gaskets. This warranty is conditioned on the Buyer 1) giving BUNN prompt notice of any claim to be made under this warranty by telephone at (217) 529-6601 or by writing to Post Office Box 3227, Springfield, Illinois 62708-3227; 2) if requested by BUNN, shipping the defective equipment prepaid to an authorized BUNN service location; and 3) receiving prior authorization from BUNN that the defective equipment is under warranty.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY OTHER WARRANTY, WRITTEN OR ORAL, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF EITHER MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. The agents, dealers or employees of BUNN are not authorized to make modifications to this warranty or to make additional warranties that are binding on BUNN. Accordingly, statements by such individuals, whether oral or written, do not constitute warranties and should not be relied upon.

If BUNN determines in its sole discretion that the equipment does not conform to the warranty, BUNN, at its exclusive option while the equipment is under warranty, shall either 1) provide at no charge replacement parts and/or labor (during the applicable parts and labor warranty periods specified above) to repair the defective components, provided that this repair is done by a BUNN Authorized Service Representative; or 2) shall replace the equipment or refund the purchase price for the equipment.

THE BUYER’S REMEDY AGAINST BUNN FOR THE BREACH OF ANY OBLIGATION ARISING OUT OF THE SALE OF THIS EQUIPMENT, WHETHER DERIVED FROM WARRANTY OR OTHERWISE, SHALL BE LIMITED, AT BUNN’S SOLE OPTION AS SPECIFIED HEREIN, TO REPAIR, REPLACEMENT OR REFUND.

In no event shall BUNN be liable for any other damage or loss, including, but not limited to, lost profits, lost sales, loss of use of equipment, claims of Buyer’s customers, cost of capital, cost of down time, cost of substitute equipment, facilities or services, or any other special, incidental or consequential damages.

392, A Partner You Can Count On, Air Infusion, AutoPOD, AXIOM, BrewLOGIC, BrewMETER, Brew Better Not Bitter, BrewWISE, BrewWIZARD, BUNN Espress, BUNN Family Gourmet, BUNN Gourmet, BUNN Pour-O-Matic, BUNN, BUNN with the stylized red line, BUNNlink, Bunn-OMatic, Bunn-O-Matic, BUNNserve, BUNNSERVE with the stylized wrench design, Cool Froth, DBC, Dr. Brew stylized Dr. design, Dual, Easy Pour, EasyClear, EasyGard, FlavorGard, Gourmet Ice, Gourmet Juice, High Intensity, iMIX, Infusion Series, Intellisteam, My Café, Phase Brew, PowerLogic, Quality Beverage Equipment Worldwide, Respect Earth, Respect Earth with the stylized leaf and coffee cherry design, Safety-Fresh, savemycoffee.com, Scale-Pro, Silver Series, Single, Smart Funnel, Smart Hopper, SmartWAVE, Soft Heat, SplashGard, The Mark of Quality in Beverage Equipment Worldwide, ThermoFresh, Titan, trifecta, Velocity Brew, Air Brew, Beverage Bar Creator, Beverage Profit Calculator, Brew better, not bitter., BUNNSource, Coffee At Its Best, Cyclonic Heating System, Daypart, Digital Brewer Control, Element, Milk Texturing Fusion, Nothing Brews Like a BUNN, Pouring Profits, Signature Series, Sure Tamp, Tea At Its Best, The Horizontal Red Line, Ultra are either trademarks or registered trademarks of Bunn-O-Matic Corporation. The commercial trifecta® brewer housing configuration is a trademark of Bunn-O-Matic Corporation.

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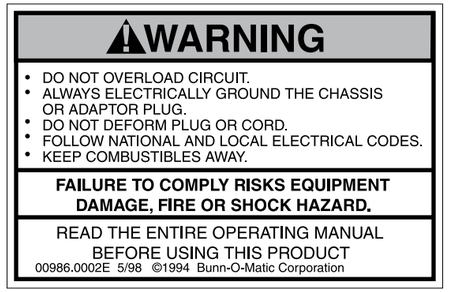
USER NOTICES

Carefully read and follow all notices on the equipment and in this manual. They were written for your protection. All notices are to be kept in good condition. Replace any unreadable or damaged labels.


WARNING
• DO NOT OVERLOAD CIRCUIT.
• ALWAYS ELECTRICALLY GROUND THE CHASSIS OR ADAPTOR PLUG.
• DO NOT DEFORM PLUG OR CORD.
• FOLLOW NATIONAL AND LOCAL ELECTRICAL CODES.
• KEEP COMBUSTIBLES AWAY.
FAILURE TO COMPLY RISKS EQUIPMENT DAMAGE, FIRE OR SHOCK HAZARD.
READ THE ENTIRE OPERATING MANUAL BEFORE USING THIS PRODUCT
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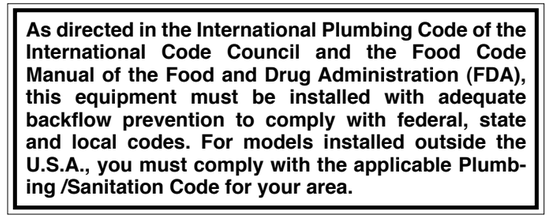
As directed in the International Plumbing Code of the International Code Council and the Food Code Manual of the Food and Drug Administration (FDA), this equipment must be installed with adequate backflow prevention to comply with federal, state and local codes. For models installed outside the U.S.A., you must comply with the applicable Plumbing /Sanitation Code for your area.

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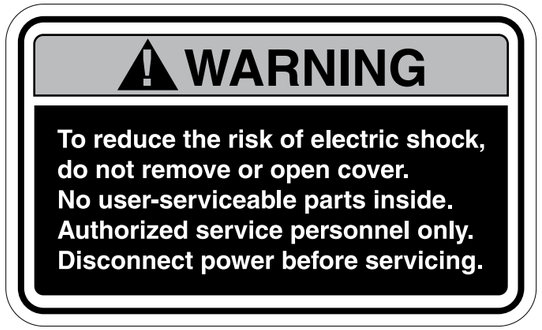
WARNING
To reduce the risk of electric shock,
do not remove or open cover.
No user-serviceable parts inside.
Authorized service personnel only.
Disconnect power before servicing.

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INTRODUCTION

The BUNN LCA-1 dispenser is design to hold up to 1/2 gal (2 l) of ambient - shelf stable liquid coffee concentrate. The dispenser is designed to operate when ambient temperatures are from 32°F (0°C) minimum to 95°F (35°C) maximum. Always follow the Concentrate Manufacturer's Storage and Shelf Life recommendations.

ELECTRICAL REQUIREMENTS

Refer to the Data Plate on the dispenser, and local/national electrical codes to determine circuit requirements.
WARNING - If the power cord is ever damaged, it must be replaced by the manufacturer or its service agent with a special cord available from the manufacturer or its service agent in order to avoid a hazard.

The LCA-1 is supplied with a 120-volt / 15 Amp cord set and require a 2-wire, grounded, individual branch circuit rated for 120 volts AC, 15 amp, single phase, 60Hz. The mating connector must be a NEMA 5-15R.

The LCA-1A dispenser is internally wired from the factory for 220-240 volts AC, Single Phase, 50/60 Hz. It requires a 2-wire, grounded, individual branch circuit rated for 240 volts AC.

CE REQUIREMENTS

- This appliance must be installed in locations where it can be overseen by trained personnel.
- For proper operation, this appliance must be installed where the temperature is between 5°C to 35°C.
- Appliance shall not be tilted more than 10° for safe operation.
- An electrician must provide electrical service as specified in conformance with all local and national codes.
- This appliance must not be cleaned by water jet.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given instructions concerning use of this appliance by a person responsible for its safety.
- Children should be supervised to ensure they do not play with the appliance.
- If the power cord is ever damaged, it must be replaced by the manufacturer or authorized service personnel with a special cord available from the manufacturer or its authorized service personnel in order to avoid a hazard.
- Machine must not be immersed for cleaning.
- A weighted sound pressure level is below 70dB.
- Access to service area to be restricted to persons having knowledge and practical experience of the appliance in particular as far as hygiene are concerned.

PLUMBING REQUIREMENTS

The dispenser may be connected to a cold or hot water system (140°F (60°C) Max.) with operating pressure between 20 and 90 psi (0.138 and 0.620 MPa) from a 3/8" (10mm) or larger supply line. A shut-off valve should be installed in the line before the dispenser. Install a regulator in the line when pressure is greater than 90 psi (0.620 MPa) to reduce it to 50 psi (0.345 MPa). The water inlet fitting is 1/4" flare. The dispensers set up to deliver to 1.25 Oz./sec. (37.0 ml/sec.) and require a water supply source that can deliver a minimum of 1.0 gpm (3.8 lpm) at the inlet fitting.
NOTE: Bunn-O-Matic recommends 1/4" tubing from the 3/8" water supply line. At least 18 inches (0.5m) of FDA approved flexible beverage tubing, such as reinforced braided polyethylene or silicone, before the dispenser will facilitate movement to clean the counter top. Bunn-O-Matic does not recommend the use of a saddle valve to install the dispenser. The size and shape of the hole made in the supply line by this type of device may restrict water flow.

As directed in the International Plumbing Code of the International Code Council and the Food Code Manual of the Food and Drug Administration (FDA), this equipment must be installed with adequate backflow prevention to comply with federal, state and local codes. For models installed outside the U.S.A., you must comply with the applicable Plumbing /Sanitation Code for your area.

NOTE - Water pipe connections and fixtures directly connected to a potable water supply shall be sized, installed and maintained in accordance with federal, state and local codes.

BUNN recommends the use of our Easy Clear® Water Quality Systems to assure perfect taste.

Filter Kits - Easy Clear EQHP-10L w/Scale Inhibitor (Bunn-O-Matic part no. 39000.0001)
or
Easy Clear EQHP-10 (Bunn-O-Matic part no. 39000.0004)

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INITIAL SET-UP

NOTE: The dispenser weighs approximately 40 lbs. (18 kg), when empty.
If necessary, use more than one person when lifting or moving the dispenser.

1. Cut the plastic bands and remove the top box and other packing.
2. Locate and remove the Adapter Tube Kit, Graphic Kit, Drip Tray & Literature Pkg from the packaging and set aside.
3. Set dispenser on the counter where it is to be used. **CAUTION: DO NOT LIFT ON THE DOOR**.
4. Install the drip tray assembly between the front legs. The magnets will hold the tray in place.
5. Install the Graphic decal in the door.

LOCATING THE DISPENSER

Additional clearance is required on both sides and behind the dispenser to allow for proper air flow and cooling. The dispenser requires a minimum space of 16.6” wide x 17.8” tall x 23.0” deep (42,2 x 45,2 x 58,4 cm)(to allow for the drip tray, water and electrical connections). In addition, allow enough clearance on the left-hand side to allow the door to open freely.
NOTE: In high ambient location where the air temperature around the dispenser could exceed 95°F (35°C), additional clearance is required on both sides and behind the dispenser to allow for proper air flow and cooling.

PLUMBING HOOK-UP

1. Flush the water line to remove any debris or foreign material.
2. Remove the shipping cap from the inlet fitting on the back of the dispenser and securely attach the water line to the fitting supplied.
3. Turn on the water supply and check for leaks.

ELECTRICAL HOOK-UP

CAUTION: Improper electrical installation will damage electronic components.
Refer to Data Plate on the dispenser, and local/national electrical codes to determine circuit requirements.
1. An electrician must provide electrical service as specified in conformance with all local, state and federal electrical codes.
2. Using a voltmeter, check the voltage and color-coding of each conductor at the electrical source.
3. Connect the dispenser to the power source.
4. If plumbing is to be hooked up later, be sure the dispenser is disconnected from the power source. If plumbing has been hooked up, the dispenser is ready for Initial Fill & Heat.

OPERATING CONTROLS AND INTERFACE

User Interface:

1. Dispense Switch: Push and Hold to dispense product.
2. Hot Water Switch: Push and Hold to dispense hot water only.
3. Portion Switch: Momentarily pushed to select a Portion dispense.
4. Power LED: Red - illuminates when AC power is applied to dispenser.
5. Ready LED: Green - illuminates when the water is with in 10 F (6°C) of the desired water temperature.
6. Warning LED: Yellow - illuminates when an error condition is detected.

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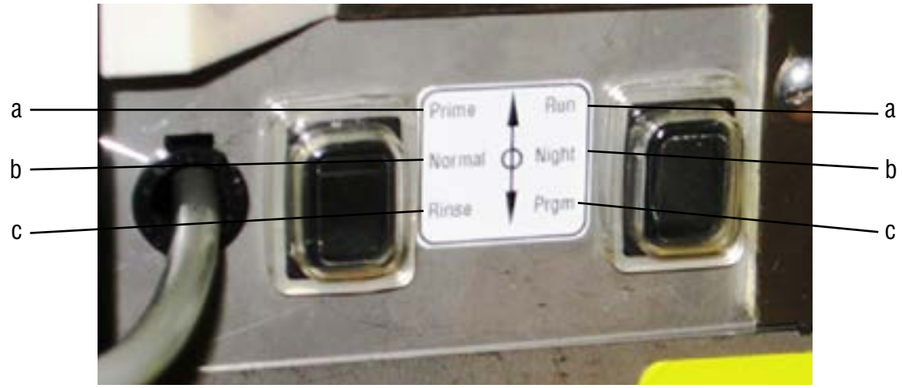
OPERATING CONTROLS AND INTERFACE (Continued)

Selector Switches: (Located behind the splash guard panel)



Left Sw:

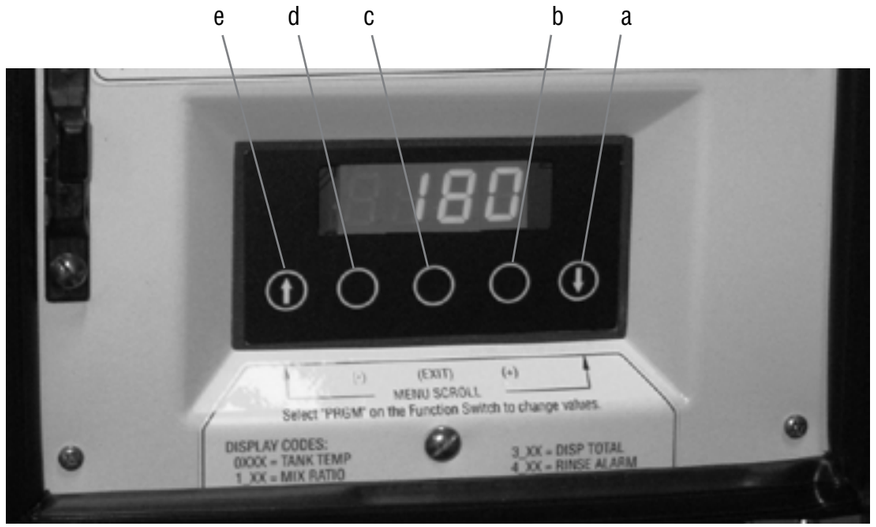
a. Prime: Dispenses concentrates only – Primes the concentrate pump.
b. Normal: Normal dispense mode - Dispenses mixed product (concentrate and water).
c. Rinse: Dispenses hot water only- Flushes the dispense tip.

Right Sw:

a. Run: Normal operating position.
b. Night: Anti-pilfering mode that disables dispensing, but keeps heater operational.
c. Program: Enables programming and set up of the dispenser.

WARNING - The NIGHT Mode does not remove AC power from the dispenser. Disconnect power source before servicing the dispenser.

Programming Switches: Used in conjunction with the LED display to program and calibrate the dispenser to customer specific requirements.



a. Down Arrow: used to scroll to the next menu screen.
b. (+): used to increase the displayed value.
c. (EXIT): used to exit the programming menu.
d. (-): used to decrease the displayed value.
e. UP Arrow: used to scroll to back to previous menu screen.

INSTALLING PUMP TUBING

INSTALLING THE PUMP TUBING

1. Remove the BIB and product shelf to access the pump assembly.
2. Loosen thumbscrew (Fig 1) to remove the cover plate and set it aside.
3. Depress tension screw and remove it from notch in the pump body to release the tension on the pump band. (Fig 1)
4. Pull the pump tube from around pump rotor.(Fig 1)
5. Inspect pump bands for signs of wear and replace if necessary.
6. Apply lubricant (BUNN-O-MATIC part no. M2548.1000) to the middle section of the new pump tubing.(Fig 2)
7. Wrap the new pump tubing around the rotor, making sure the elbow is snug against the inlet of the pump.(Fig3)
8. Depress tension screw and insert it in notch in the pump body, reapplying spring tension on the pump band. (Fig 3)
9. Connect the pump tubing the port on the SST dispense tube. (Fig 3).
10. Replace the cover plate and tighten thumbscrew.
11. Route the BIB Adapter tube through the notch in the product shelf and re-install the shelf. (Fig 4)
12. Reconnect the BIB Adapter to the product BIB. (Fig 5)

Note: Replacement Tube Kits can be purchased from BUNN-O-MATIC. Order part no. 44713.1000

FIG 1

Remove Cover
Release Tension
Remove Tubing

FIG 2

Lubricate
New Tube

FIG 3

Install Tubing
Reset Tension
Replace Cover

FIG 4

Route Tubing
Replace Shelf
Connect BIB

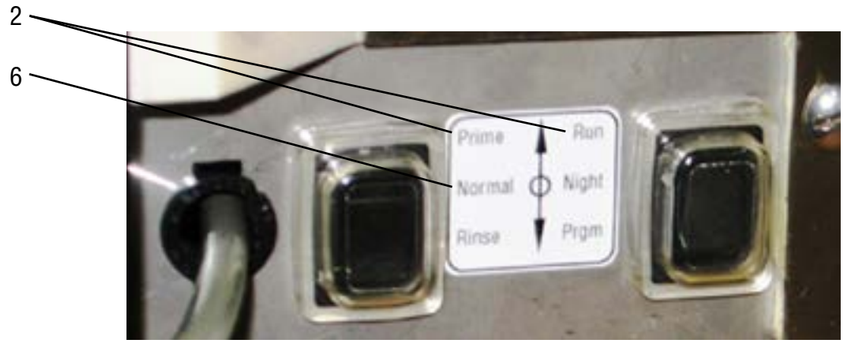
FIG 5

Completed
Installation

PRIMING THE CONCENTRATE LINE

1. Open the dispenser door.
2. Select **Prime** and **Run** on the Selector switches.
3. Close the dispenser door.
4. Place a container under the dispense tip.
5. Activate the dispenser until concentrate flows from the dispense nozzle, (5 to 10 seconds).
6. Open the dispenser door, select **Normal** on the Selector switch.

Note: Concentrate may continue to drip out of dispense tip. The user may wish to Rinse the dispenser to clean out the remaining concentrate.



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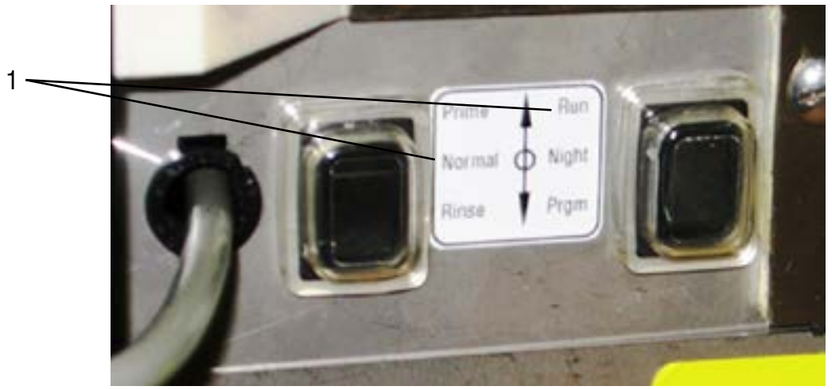
INITIAL FILL & HEAT

1. Select **Normal** and **Run** on the Selector switches.
2. Confirm the water supply is on.
3. Connect the dispenser to the power source.
4. The Red POWER LED will illuminate and water will begin flowing into the tank. The dispenser will automatically stop filling when the tank is full. The dispenser will not begin heating the water until after the tank is filled.
5. The Green READY LED will illuminate when the tank temperature reaches the preset Ready temperature.



Rinse Alarm Feature

Periodic rinsing of the dispense tip is essential for proper maintenance and optimum performance of the dispenser. The automated Rinse Alarm feature has two levels of operation, Disabled and Warning.

Level Selected	**Alarm**
Disabled	None
Warning	Warning LED will come on 4 hrs prior to the selected time interval and remain on until the Rinse procedure has been performed.

NOTE: Alarm Only - Does not prevent dispensing. To clear the Rinse Alarm, refer to the Rinse Procedure.

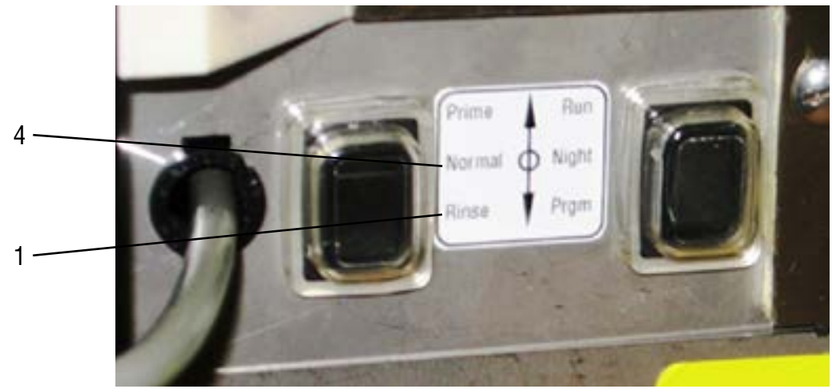
The dispenser is shipped with the automated Rinse Alarm disabled. It is up to the user to determine if the Rinse Alarm is needed and the time interval, based on their application and maintenance procedures. The time interval between Rinses is adjustable from 8 to 24 hrs. To enable the automated Rinse Alarm feature, refer to RINSE ALARM in *Programming the Dispenser.*

Rinse Procedure:

1. Open the cabinet door and select **Rinse** on the Selector switch – close the door.
2. Place a 2 Liter (1/2 Gal) container under the dispense tip.
3. Press and hold the Dispenser switch until water flow stops automatically, approximately 20 sec.

NOTE: The Warning LED will turn OFF, when the Rinse procedure has been satisfied.

4. Open the cabinet door and select **Normal** on the Selector switch – close the door.



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PROGRAMMING THE DISPENSER

Two basic modes are available to the operator: Display Mode and Program Mode. Open the dispenser door to access the digital ***Programming Switches*** with LED display. To enter the **Display Mode**, Set the RUN/NIGHT/PROGRAM Switch to the RUN position.

Display Mode: Used to view the current set-up values. Use the MENU switch to scroll to the next display.
NOTE: The display blanks out after two minutes of inactivity. Press any button to activate the display.

LED DISPLAY	DISPLAY MODE	DESCRIPTION
180	Home View	Displays Tank Temp only.
0180	Tank Temperature	Displays Target Tank Temperature (F°)
1 30	Dispense Ratio	Displays Dispense Ratio (XXX:1)
2 0.0	Portion Volume	Displays Portion Dispense Volume (XX.X Oz.). Set to 0.0 to Disable.
3 0.0	Dispense Total	Displays Total Coffee Concentrate Dispensed (XX.X Gal)
4 OFF	Rinse Alarm (Hrs)	Displays The Number Of Hours Between Required Rinses. (Default = OFF, Alarm Disabled)
XX.X	Software Version	Displays Software Version # - Exits To Home View After 3 Seconds.

PROGRAMMING THE DISPENSER (Cont.)

Program Mode: Used to change or enter new set-up values.

To enter the **Program Mode**, Set the RUN/NIGHT/PROGRAM Switch to the PROGRAM position, the unit will display "__PPP" to indicate it is in the Program Mode. Use the MENU switch to scroll to the next display. Use the Increase (+) and Decrease (-) switch to adjust the values.

LED DISPLAY	PROGRAM MODE	DESCRIPTION
0180	Tank Temperature	Default = 180°F (82°C) Range = 120° - 200°F (49 - 93°C) Ready Temp = Tank Temp minus 10°F (~5.5°C)
1 30	Dispense Ratio	Set Coffee Mix Ratio Default = 30:1 Range = 20 Max / 100 Min
2 0.0	Portion Volume	Set Portion Dispense Volume Default = 0.0, Disabled Range = 5.0 - 40.0 Oz. (.15 - 1.2 L)
3 0.0	Dispense Total	Hold Decrease Switch to Reset Total to Zero. 0.0 Gal (0.0 L)
4 0.0	Rinse Alarm Timer	Default = OFF (Rinse Alarm Disabled) Range = 8 - 24 hrs
XX.X	Software Version	Displays Software Version # - Exits To Home View After 3 Seconds.

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OPERATING THE DISPENSER

Set the Function Selector Switch to "Normal" **and the Mode Selector Switch to** "Run**."**

1A. Push and Hold Dispense Mode (Cup at a time).

a. Place cup on the tray beneath the dispensing tip.

b. Push and hold the Dispense Switch until the cup is nearly full.

c. Remove the cup.

1B. Portion Dispense Mode. Refer to Programming Functions to set the desired volume.

a. Place the appropriate size container beneath the dispensing tip.

b. Momentarily press the Portion Switch then momentarily press the Dispense Switch.

c. Remove the cup or container.

NOTE: If the user waits longer than 5 seconds to push the Dispense switch, the unit will default back to the Push and Hold mode. A Portion dispense can be aborted at any time by momentarily pushing the Dispense switch again.

d. Wait for the container to fill and the dispenser to quit dispensing.

3. Hot Water Dispense

a. Place a container under the dispense tip.

b. Push and hold the Hot Water switch until water reaches the desired level, then release.

GENERAL CLEANING AND SANITIZING PROCEDURES

Note: The BUNN® LCA-1 dispenser incorporates a "user selectable" rinse reminder feature, which displays warning LED on the front panel when it is time to rinse. See *Programming Functions* to activate this feature.

DAILY RINSING

1. Open dispenser door and select Rinse and Run on the Function switches.
2. Close dispenser door and place a container under dispense nozzle area.
3. Press the dispense switch until the water runs clear or has no concentrate coloring in it, (10 to 20 sec.).
4. Open dispenser door, set the Function switch back to Normal.

Note: To clear the "Rinse" warning, you must hold the dispense switch until flow stops automatically (~20 sec). The "Rinse" LED will turn off when the Rinse time has been satisfied.

DAILY PARTS WASHING

1. Remove and wash drip tray and drip tray cover in a mild detergent solution. Rinse thoroughly.
2. Wipe splash panel, dispense nozzles, door, and cabinet with a clean damp cloth.

WEEKLY SANITIZING

1. Open dispenser door and select Prime and Run on the Function switches.
2. Remove the connector from the product box and disassemble or prop open the internal valve to allow free flow of product through the connector. Note: Cutting the mating fittings from an empty bag makes an excellent "free flowing" connector for this purpose.
3. Place the connector into a 1/2 gallon (2 liter) container of warm soapy tap water 140F (60C).
4. Place a container under the dispense tip and activate the dispense switch until clean soapy water is dispensed from the dispense tip.
5. Repeat steps 3 and 4 with warm tap water 140F (60C) to rinse the soapy water from the pump tubing. Continue activating the dispense switch until water is clear, and no soapy water is being dispensed.
6. Prepare 1 gal. (3.8 L) of sanitizing solution by dissolving 0.4 Oz (11.4 grams) of Kay-5® Sanitizer into 1 gal. (3.8 L) of 120 F (48.9 C) water to ensure 100 ppm of available chlorine.
7. Repeat steps 3 and 4 with the sanitizing solution. Once the sanitizing solution is visible, continue to dispense for 1 minute.
8. Allow the sanitizer solution to sit for 5 minutes in the tubing.
9. After soaking for 5 minutes, activate the Dispense Switch a second time for 2 minutes.
10. Repeat step 3 and 4 with warm tap water to flush the sanitizing solution out of the pump tubing.
11. Reattach bag connector to product box and select Normal and Run on the Function switches
12. Actuate the dispense switch until concentrate/water mixture appears. Continue to dispense at least 12 oz. (350 ml) of concentrate/water mixture and discard.

Wipe internal and external surfaces with a clean, damp cloth.

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PREVENTIVE MAINTENANCE

Bunn-O-Matic® Corporation recommends that preventive maintenance be performed at regular intervals. Maintenance should be performed by a qualified service technician. For Technical Service, contact Bunn-O-Matic® Corporation at 1-800-286-6070.

NOTE: Replacement parts or service caused by failure to perform required maintenance is not covered by warranty. Replace pump hoses every 6-Months or as needed.

REPLACING THE PUMP TUBING

The pumps and tubing used in the dispenser are designed to give maximum performance and long life. However, the tubes are a wear item and must be replaced periodically. How long the tubes last is dependent on usage and properties of the concentrate. Excessive wear will reduce the output of the pumps resulting in a weak mixed beverage. Bunn-O-Matic recommends replacing the Pump Tubing a minimum of once every 6 months or sooner if warranted. Refer to the Tube Replacement Instruction inside the Cabinet door.

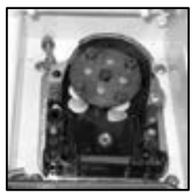
REPLACING THE PUMP TUBING

Note: Rinse tubing with warm water (steps 1 - 4 of the Weekly Sanitizing Instructions) prior to removing to avoid spills.

1. Remove the BIB and product shelf to access the pump assembly.
2. Loosen thumbscrew (Fig 1) to remove the cover plate and set it aside.
3. Depress tension screw and remove it from notch in the pump body to release the tension on the pump band. (Fig 1)
4. Pull the pump tube from around pump rotor. (Fig 1)
5. Inspect pump bands for signs of wear and replace if necessary.
6. Apply lubricant (BUNN-O-MATIC part no. M2548.1000) to the middle section of the new pump tubing. (Fig 2)
7. Wrap the new pump tubing around the rotor, making sure the elbow is snug against the inlet of the pump.(Fig3)
8. Depress tension screw and insert it in notch in the pump body, reapplying spring tension on the pump band. (Fig 3)
9. Connect the pump tubing the port on the SST dispense tube. (Fig 3).
10. Replace the cover plate and tighten thumbscrew.
11. Route the BIB Adapter tube through the notch in the product shelf and re-install the shelf. (Fig 4)
12. Reconnect the BIB Adapter to the product BIB. (Fig 5)

Note: Replacement Tube Kits can be purchased from BUNN-O-MATIC. Order part no. 44713.1000

FIG 1



Remove Cover
Release Tension
Remove Tubing

FIG 2

Lubricate
New Tube

FIG 3

Install Tubing
Reset Tension
Replace Cover

FIG 4

Route Tubing
Replace Shelf
Connect BIB

FIG 5

Completed
Installation

REPLACING THE WATER FILTER:

Refer to the instructions supplied with the water filter kit for the recommended intervals and procedure for replacing the filter cartridge.

CALIBRATING THE DISPENSER

NOTE: The LCA-1 is calibrated at the factory and does not normally need to be re-calibrated. Open the dispenser door to access the digital ***Programming Switches*** with LED display. To enter the **Calibration Mode**, Set the RUN/NIGHT/PROGRAM Switch to the PROGRAM position and then hold both Up and Down Arrow switches until "1 r u n" appears of the display, (approx 15 sec).

LED DISPLAY	CALIBRATION MODE	DESCRIPTION
1 r u n	Pump Cal. Procedure	Set PRIME-NORMAL-RINSE switch to PRIME position. Place Graduated Cylinder under dispense tip. Press and hold Dispense Switch until pump stops (20 sec) Refer to Calibration Procedure.
1 2 2	Pump Cal. #	Enter mL collected from the 20 sec. test above. Default = 22 Range = 18 - 26mL
2 r u n	Water Flow Rate	Set PRIME-NORMAL-RINSE switch to RINSE position. Place Graduated Cylinder under dispense tip. Press and hold Dispense Switch until pump stops (20 sec) Refer to Calibration Procedure.
2 7 6 0	Water Flow Rate	Enter mL collected from the 20 sec. test above. Default = 760 Range = 780 - 820 mLiters
3	Not used in the LCA-1	
4 E n g	English or Metric Mode	Used to select the desired units. Default = English S.I. for Metric
5 E _ _	Error Code Memory	Display cycles through the last (3) Error Codes. Erase by holding the Decrease (-) switches for 10 sec. Currently have to hold (+) & (-)

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CALIBRATING THE DISPENSER (Cont.)

LED DISPLAY	CALIBRATION MODE	DESCRIPTION
6 - - -	Reset Factory Defaults	Resets all set up values to the Factory Default setting. Reset by holding the Decrease (-) switches for 10 sec. Currently have to hold (+) & (-)
_ 200	Pump “OFF” Delay	Delays the Pump turn off after a dispense. Default = 200 Range = 1 - 999 mSec.
- XX.X	Software Version	Displays current Software Version # - Exits To Home View After 3 Seconds.

TROUBLESHOOTING GUIDE

Error Codes

When an error has occurred, the Warning LED will be flashing. Open the door to view the LED Display and record the Error # shown on the display. Refer to the list of Error Codes below to identify the problem. The troubleshooting guide is provided to suggest probable causes and remedies for most problems. If the problem remains after exhausting the troubleshooting steps, contact the Bunn-O-Matic Technical Service Department.

LED DISPLAY	ERROR	DESCRIPTION/TROUBLESHOOTING
E _01	Pump Error	Motor or RPM Sensor failure. Check motor and RPM Sensor wires for shorts, loose or open connections.
E _02	Heating Time Too Long	Tank Heater ON continuous for more than 1 hour. Check heater wires for loose or open connections.
E _03	Fill Time Too Long	Fill Valve ON continuous for more than 15 minutes. Check: Water turned OFF. Refill Valve disconnected or faulty.
E _04	Tank Temp Sensor Error	Sensor reading Out Of Range (High or Low). Check Sensor wires for shorts, loose or open connections.
E _05	Dispense Time Too Long	Dispense or Hot Water switch has been ON for more than 2 Min. Check: Dispense switches for proper operation or damage. Door harness for shorts.
E _08	Water Temp Too Hot	The water temperature in the tank exceeded 205°F (96°C). Check: Tank heater harness for shorts, heater relay locked ON, heater element shorted to ground.

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CALIBRATION OF THE CONCENTRATE PUMP & DISPENSER FLOW RATE

The factory set default values for the Pump & Dispenser Flow Rates are very accurate and typically do not need to be field calibrated. However, if the mix ratio accuracy is ever in question, this procedure can be used to recalibrate the unit in the field.

Equipment Required:

50 ml graduated cylinder, with 1 ml graduations.
1000 ml graduated container.

NOTE: You can calibrate either the Concentrate Pump or the Dispenser Flow Rate independently. Simply scroll through the menu screen to the desired section and perform only those steps.

Calibrating the Concentrate Pumps.

1. Open the door of the dispenser and select PROGRAM on the Selector Switch. The display should show PPP.
2. Depress and Hold both Up & Down arrows switch for approximately 15 sec. The unit will display "1 run" when it has entered the Calibration Mode.
3. Select PRIME on the Selector Switch.
4. Place a container under the dispense tip and depress the dispense switch until a steady stream of concentrate comes out the tip (5 to 10 seconds).
5. Stop priming and allow the tip to stop dripping. Discard the concentrate collected.
6. Place a 50 ml graduated cylinder under the Dispense Tip.
7. Press & Hold the dispense switch. The dispenser will display a 20 second count down timer and then shut the pump OFF automatically. You can abort the calibration and stop the pump by releasing the switch.
8. Keep the graduated cylinder under dispense tip until all the concentrate has dripped out.
9. Measure the volume of concentrate collected in the graduated cylinder.

<u>The acceptable range for the volume of concentrate collected is 16 - 26 ml</u>

10. If the amount collected is not within the acceptable range, repeat STEPS 6 – 9.
11. If the amount collected is still not within range, replace the pump tubing with a new Tube Kit, (refer to the Tube Replacement Instructions) and restart this procedure.
12. When satisfied with the volume of concentrate collected, press the Down Arrow switch. The current Calibration volume "1 XX" will be displayed.
13. Use the (-) or (+) keys to adjust the number displayed to the amount measured in STEP 9.

(Continued Next Page)

CALIBRATION OF THE CONCENTRATE PUMP & DISPENSER FLOW RATE (Continued)

Calibrating the Dispenser Flow Rates.

1. Select RINSE on the Selector Switch.
2. Press the Down Arrow switch to display the Flow Rate calibration menu "2 run"
3. Place a container under dispense tip and depress the dispense switch until a steady stream of water comes out the tip (5 to 10 seconds).
4. Stop dispensing and allow the tip to stop dripping. Discard the water collected
5. Place a 1000 ml graduated container under dispense tip.
6. Press & Hold the dispense switch. The dispenser will display a 20 second count down timer and then stop dispensing automatically. You can abort the calibration and stop the dispense by releasing the switch.
7. Keep the graduated container under dispense tip until all the water stops dripping.
8. Measure the volume of water collected in the graduated container.

<u>The acceptable range for the volume of water collected is 700 to 820 ml</u>

9. If the amount of water collected is not within the acceptable range, empty the graduated container and repeat STEPS 5 – 8.
10. If the amount collected is still not within range, inspect the dispense valves, tubing and mix chamber for lime, kinks or other obstructions.
11. When satisfied with the volume of water collected, press the Down Arrow switch. The current Water Calibration volume "2 .XX0" will be displayed.
12. Use the (-) or (+) keys to adjust number displayed to the amount measured in STEP 8 in Liters, (not ml).

DRAINING THE HOT WATER TANK

CAUTION: The dispenser must be disconnected from the power source throughout these steps.

1. Disconnect the dispenser from the power source.
2. Shut off and disconnect the incoming water supply.
3. Remove the rear access panel.
4. Close the tube clamp on the hose from the inlet valve to the tank.
5. Remove the hose from the inlet fitting and direct it into a 150 Oz (4.5L) or larger container.
6. Open the tube clamp. Continue draining tank until ALL of the water is out. Be careful when draining the water as it may be very hot.
7. Reconnect the tube to the inlet valve.
8. Leave the tube clamp open and replace the rear access panel.

Note: The dispenser must be refilled using the *Initial Fill & Heat* steps before reconnecting the power source.

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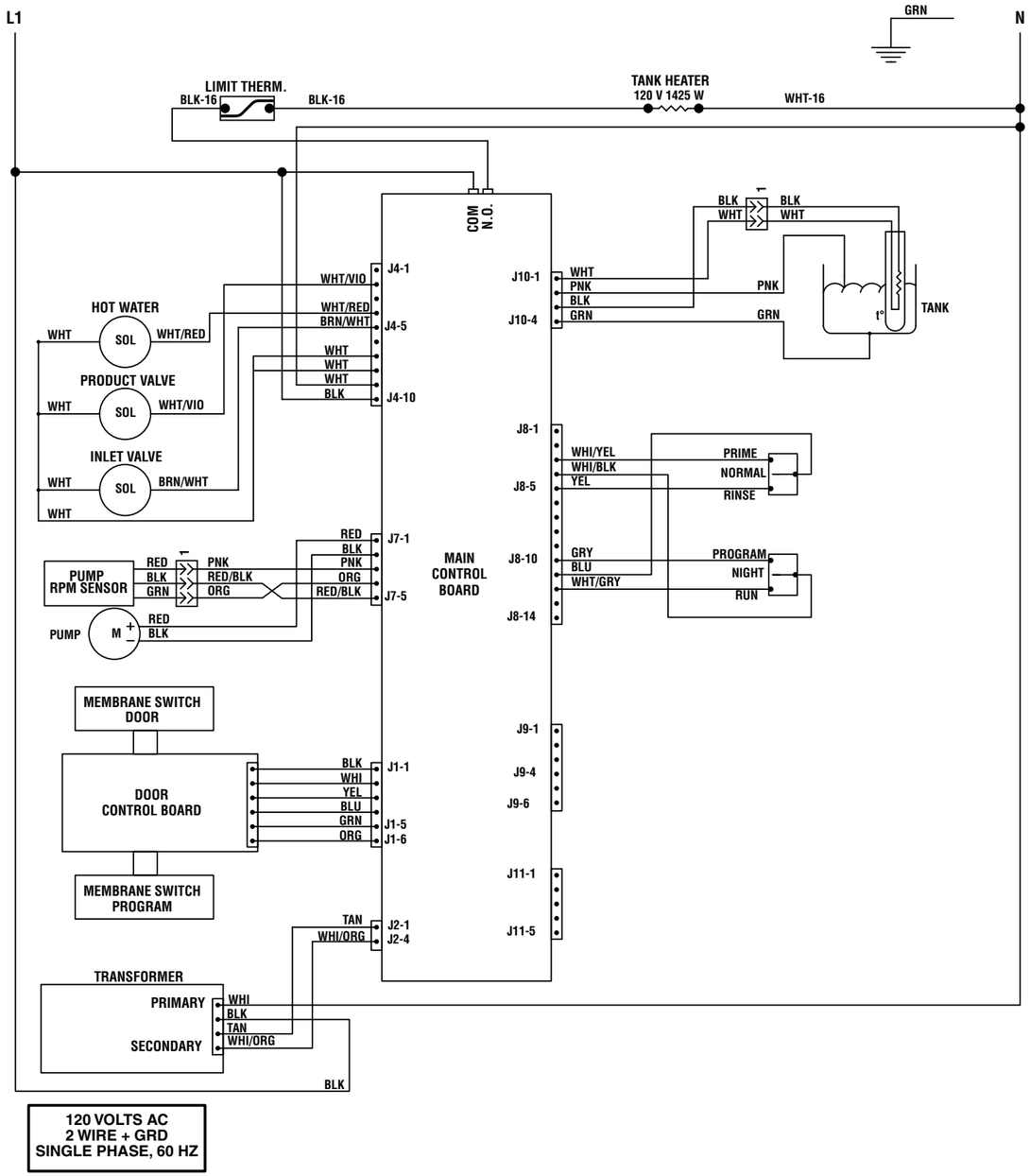
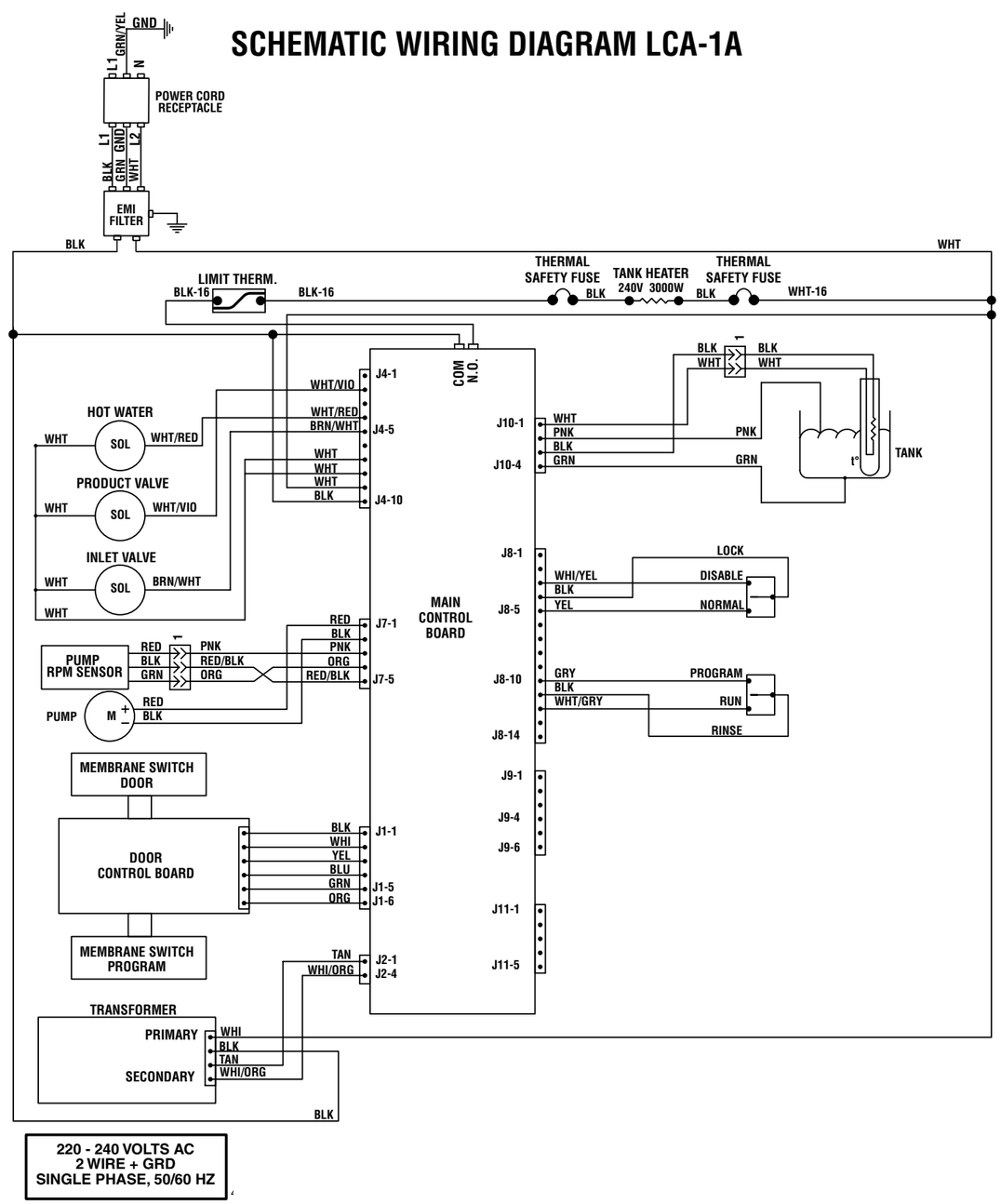
SCHEMATIC WIRING DIAGRAM LCA-1



120 VOLTS AC
2 WIRE + GRD
SINGLE PHASE, 60 HZ

SCHEMATIC WIRING DIAGRAM LCA-1A



220 - 240 VOLTS AC
2 WIRE + GRD
SINGLE PHASE, 50/60 HZ

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